CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 :2005

T-2377

Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/CEMENT/2015-16 Date: 06.10.2015

TEST REPORT ON CEMENT

* CUSTOMER	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
*AGENCY	:	**Technical Manager (West),** KRIDL, Bangalore.
*NAME OF THE WORK	:	Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.
*REFERENCE	:	BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015
SAMPLE ID	:	Cement
SAMPLE RECEIVED ON	:	03.10.2015
PERIOD OF TESTING	:	03.10.2015 to 06.10.2015

The results of the tests conducted on the cement sample are as follows:

Sl. No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-2013
1	Standard Consistency	IS-4031 (Part -4) 1988(RA-2009)	29.00 %	-
2	a) Initial Setting Time	IS-4031 (Part -5) 1988(RA-2009)	145 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5) 1988(RA-2009)	480 Minutes	Not More than 600 Minutes
3	Soundness by Le Chartlier Method	IS-4031 (Part-3) 1988(RA-2009)	1 mm	Not more than 10mm

*Information is furnished by the Customer/Representative.

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AE W.4

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Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/SAND-Gradation/2015-16 : 06.10.2015

TEST REPORT ON DETERMINATION GRADATION OF FINE AGGREGATES

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of Work	: Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.
Reference	: BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015
Technical Reference	: IS : 2386 Part 1 - 1963 RA-2007
Sample ID	: Fine Aggregates
Sample Received on	: 03.10.2015
Date of Testing	: 06.10.2015

Total Wt. of Aggregates in gms 1000

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)			
		Zone-I	Zone-II	Zone-III	Zone-IV
10	100	100	100	100	100
4.75	96.20	90-100	90-100	90-100	95-100
2.36	78.20	60-95	75-100	85-100	95-100
1.18	58.20	30-70	55-90	75-100	90-100
600 Micron	29.20	15-34	35-59	60-79	80-100
300 Micron	15.20	5-20	8-30	12-40	15-50
150 Micron	5.20	0-10	0-10	0-10	0-15

* Information is furnished by the Customer/Representative

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Remarks : This sample is under Zone-I specific limits.

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Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/AGG/GR/2015-16 : 06.10.2015

TEST REPORT ON DETERMINATION GRADATION OF COARSE AGGREGATES

*** Customer** : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

*** Agency** : **Technical Manager (West),** KRIDL, Bangalore.

*** Name of Work** : Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.

Reference : BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015

Technical Reference : IS : 2386 Part 1 -1963 RA-2007

Sample ID : Coarse Aggregates (40mm)

Sample Received on : 03.10.2015

Date of Testing : 06.10.2015

Total Wt. of Aggregates in gms= **5000**

Is Sieve Size in mm	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA- 2007)	
		Graded	Single Sized
80	100	100	-
63	100	-	100
40	97.00	95-100	85-100
20	37.00	30-70	0-20
10	13.00	10-35	0-5
4.75	3.00	0-5	-

* Information is furnished by the Customer/Representative

Remarks : This sample is under Graded specific limits.

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Job No.: CTCE/BBMP/W.No.04/KRIDL /STEEL/2015-16 06.10.2015

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015
Date of Test	:	06.10.2015
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	8	0.40	510	552	13.10	O.K	O.K

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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.04/KRIDL /STEEL/2015-16 06.10.2015

TEST REPORT ON REINFORCEMENT STEEL

Customer	:	**Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
Agency	:	**Technical Manager (West),** KRIDL, Bangalore.
Name of the Work	:	Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.
Reference	:	BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015
Date of Test	:	06.10.2015
Technical Reference	:	IS. 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm^2	Tensile strength (Ultimate stress) N/mm^2	Elongation percent gauge length		
1	10	0.62	513	556	13.30	O.K	O.K

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T-2377

Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/CUBE/2015-16 05.11.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer	: **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.
* Agency	: **Technical Manager (West),** KRIDL, Bangalore.
* Name of the work	: Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.
* Reference	: BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015
* Sample ID	: RCC Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
* Grade of Concrete	: M_{20}
Compressive Strength as on	: 28th day
Sample Received on	: 05.11.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	08.10.2015	05.11.2015	8.110	490.2	21.79
2	08.10.2015	05.11.2015	8.289	510.3	22.68
3	08.10.2015	05.11.2015	8.332	528.6	23.49

* Information is furnished by the Customer/Representative

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Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/CUBE/2015-16 05.11.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

*** Agency** : **Technical Manager (West),** KRIDL, Bangalore.

*** Name of the work** : Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.

*** Reference** : BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015

*** Sample ID** : RCC Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 05.11.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	08.10.2015	05.11.2015	8.118	499.2	22.19
2	08.10.2015	05.11.2015	8.273	510.6	22.69
3	08.10.2015	05.11.2015	8.316	528.9	23.51

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Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/CUBE/2015-16 07.11.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

*** Customer** : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

*** Agency** : **Technical Manager (West),** KRIDL, Bangalore.

*** Name of the work** : Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.

*** Reference** : BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015

*** Sample ID** : RCC Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

*** Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 07.11.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	10.10.2015	07.11.2015	8.265	483.5	21.49
2	10.10.2015	07.11.2015	8.319	506.5	22.51
3	10.10.2015	07.11.2015	8.475	510.3	22.68

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AEW-4

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Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/CUBE/2015-16 07.11.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* **Customer** : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

* **Agency** : **Technical Manager (West),** KRIDL, Bangalore.

* **Name of the work** : Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.

* **Reference** : BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015

* **Sample ID** : RCC Drain Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* **Grade of Concrete** : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 07.11.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	10.10.2015	07.11.2015	8.155	480.3	21.35
2	10.10.2015	07.11.2015	8.227	495.6	22.03
3	10.10.2015	07.11.2015	8.310	508.3	22.59

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Job No.: CTCE/BBMP/W.No.04/KRIDL/CSR-10/965n/CUBE/2015-16 16.11.2015

TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

* Customer : **Asst. Executive Engineer,** Yelahanka New Town Sub Division, BBMP, Bangalore.

* Agency : **Technical Manager (West),** KRIDL, Bangalore.

* Name of the work : Improvements to drain and asphalting to Someshwara temple 3rd B main cross roads in Ward No.04, BBMP, Bangalore.

* Reference : BBMP/AEE/YNSD/W.O/ /2015-16 Dated: 05.10.2015

* Sample ID : Cement Concrete

Size of cubes : 150mmx150mmx150mm

Cross Sectional Area : 22500 mm^2

Technical Reference : IS: 516-1959 (Reaffirmed 2008)

* Grade of Concrete : M_{20}

Compressive Strength as on : 28th day

Sample Received on : 16.11.2015

Sl.No.	* Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	19.10.2015	16.11.2015	8.230	475.5	21.13
2	19.10.2015	16.11.2015	8.360	495.2	22.01
3	19.10.2015	16.11.2015	8.412	510.6	22.69

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